

## Ruberoid on Floors

Ruberoid roofing makes a splendid floor covering for an office or workroom.

It is almost impossible to wear it out. It lays as smooth as linoleum and costs only one-fourth as much.

As a roofing, it has no equal. It is absolutely waterproof, acid-proof and fire-resisting.

It will last longer than tin, iron or shingles, and costs far less.

No skill required to lay it.

**LEWERS & COOKE, LTD.**

177 S. King Street.

## Castle & Cooke, Ltd

**Life and Fire**

## Insurance Agents

AGENTS FOR

**New England Mutual Life Insurance Co**  
OF BOSTON.

**Aetna Fire Insurance Co.,**  
OF HARTFORD, CONN.

## Oahu Railway and Land Co.'s TIME TABLE

OCTOBER 6, 1904.

### OUTWARD

For Waiānae, Waiānae, Kahuku and Way Stations—9:15 a. m., 3:20 p. m.  
For Pearl City, Ewa Mill and Way Stations—17:30 a. m., 9:15 a. m., 11:05 a. m., 2:15 p. m., 3:20 p. m., 5:25 p. m., 7:30 p. m., 11:15 p. m.

### INWARD

Arrive Honolulu from Kahuku, Waiānae and Waiānae—5:35 a. m., 5:31 p. m.  
Arrive Honolulu from Ewa Mill and Pearl City—17:46 a. m., 8:36 a. m., 10:38 a. m., 1:40 p. m., 4:31 p. m., 5:31 p. m., 7:30 p. m.

\*Daily.  
†Sunday Excepted.  
‡Sunday only.

The Haleiwa Limited, a two-hour train, leaves Honolulu every Sunday at 8:25 a. m., returning arrives in Honolulu at 10:10 p. m. The Limited stops only at Pearl City and Waiānae.

H. P. DENISON, F. C. SMITH,  
Supt. G. P. & T. A.

## CASTLE & COOKE LTD

**Commission Merchants  
Sugar Factors.**

AGENTS FOR

The Ewa Plantation Company,  
The Waiānae Agricultural Co., Ltd.  
The Kokala Sugar Company,  
The Waiānae Sugar Mill Company,  
The Fulton Iron Works, St. Louis, Mo.  
The Standard Oil Company,  
The George F. Blake Steam Pumps,  
Western's Centrifugals,  
The New England Mutual Life Insurance Company of Boston,  
The Aetna Fire Insurance Company of Hartford, Conn.,  
The Alliance Assurance Company of London.

## Hawaiian Carriage Manufacturing Company

407 QUEEN ST. TEL. MAIN 47.  
P. O. BOX 193.

Manufacturers of all kinds of Carriages and Vehicles, Wagons, Wagon Materials of all descriptions supplied; Rubber Tires put on at reasonable prices; Repairing, Painting and Trimming; satisfaction guaranteed; estimates given.

**AUTOMOBILE REPAIRING  
A SPECIALTY.**  
C. W. ZEIGLER, Manager.

Fine Job Printing, Star Office.

## "Grateful Results"

A life of suffering and misery, without sleep, without appetite. Restored to health by

## Ayer's Sarsaparilla

"I was grievously afflicted with biliousness and liver complaint. My mouth was in a terrible condition every morning, my tongue thickly coated, my breath was offensive."



else, food distressed me, I suffered much from headache, my skin was sallow, and the many remedies recommended me did no good. At last I commenced using Ayer's Sarsaparilla, and my improvement began almost from the first dose. It relieved the distress about my liver, caused my food to digest well, cured my headache, improved my complexion, and restored my appetite. These untold sufferings but grateful results were accomplished by only two and a half bottles of Ayer's Sarsaparilla."—Miss Lydia M. Tabor, Albion, La.

There are many imitations of Sarsaparillas.

Be sure you get "AYER'S."

Prepared by Dr. J. C. Ayer & Co., Lowell, Mass., U.S.A.

## THE HAWAIIAN REALTY AND MATURITY CO. LTD.

Real Estate, Mortgages, Loans and Investment Securities. Homes built on an installment plan.

Home Office: McIntyre Building, T. H. K. KENTWELL, General Manager

## REMOVAL NOTICE

DR. T. MITAMURA.

Residence: No. 50 Vineyard street on mauka side 2nd gate Ewa side from Nuuanu.

Office: No. 1412 Nuuanu street on Ewa side corner Vineyard.

Office Hours: 9-12 a. m.; 5:30-7:30 p. m.

Sunday by appointment.

Telephone: Office White 151; residence White 152.

P. O. Box 842.

## ALEXANDER & BALDWIN, LTD

J. P. Cooke, Manager.

### OFFICERS:

H. P. Baldwin.....President  
J. B. Castle.....First Vice-President  
W. M. Alexander.....Second Vice-President  
L. T. Peck.....Third Vice-President  
J. Waterhouse.....Treasurer  
E. E. Paxton.....Secretary  
W. O. Smith.....Director

## Sugar Factors and Commission Merchants

### AGENTS FOR

Hawaiian Commercial & Sugar Company,  
Maui Sugar Company,  
Paia Plantation,  
Maui Agricultural Company,  
Kihikihi Plantation Company,  
Hawaiian Sugar Company,  
Kahuku Plantation Company,  
Kahului Railroad Company,  
Maekala Ranch Company.

## C. BREWER & CO. LTD.

QUEEN STREET,  
HONOLULU, H. T.

### AGENTS FOR

Hawaiian Agricultural Company, Onomea Sugar Company, Honoumou Sugar Company, all kinds of Sugar Company, Oahu Sugar Plantation Company, Haleakala Ranch Company, Kapapala Ranch,  
Planters' Line Shipping Company,  
Charles Brewer & Co's Line of Boston Packets.

### LIST OF OFFICERS:

Charles M. Cooke.....President  
Geo. H. Robertson.....V-Pres. & Mgr.  
E. Faxon Bishop.....Treas. & Secy.  
F. W. Macfarlane.....Auditor  
P. J. Jones.....Director  
C. H. Cooke.....Director  
J. R. Galt.....Director  
All of the above named constitute the Board of Directors.

### THE CHANGEABLE MAN.

"Mr. Vane says he won't see you," said that gentleman's clerk.  
"When did you ask him?" inquired Mr. Borrowers.  
"Why, only a minute ago, of course."  
"Well, ask him again, won't you? He may have changed his mind since then."

### THOSE GIRLS.

"So you have really broken your engagement with Jack?"  
"I have, indeed."  
"And do you hate him, dear?"  
"Every bone in his body. I shall never speak to him again if I live to be a thousand years old."  
"You mean that?"  
"I do, and I shall tell him so the next time I see him."

## HOW THE CITY LOST ITS WATER SUPPLY

(Continued from Page Five).

scientist is made for the general public as follows:

The greatest trouble occurred along the backbone of the peninsula which is of granite. Against this granite formation, against this sandstone formation and overlapping it is the sedimentary formation. That it is sedimentary is evidenced by the fact that it contains shells, wash gravel, soapstone and serpentine. Now, the whole trouble occurred where sedimentary laps over on sandstone. There was not the slightest difficulty between sandstone and granite. The sedimentary formation lies between the bay and the sandstone, and evidences of the row are plainly visible across the entire range of Bald Knob Hills that divide to nothing, just this side of Colma. This sedimentary formation is new, as nature counts the years, and is still in process of construction. Some place down in the foundations there was a slight fault in the construction, and as the ages have piled on the weight, there came a time when the limit of "tensile strength" was reached and sedimentary settled slightly on its foundation. Now, whether it did so of its own accord or was pushed there by sandstone, has not been fully determined. Anyway, it was "slip fault," and who is frightened at anything so simple as that? Scientists have followed that fault, or slip, into the ocean a few miles south of the Cliff House. This fault shows to be from 75 to 150 feet in width, but is not nearly so bad as it reads.

What that little "slip fault" did to the pipe lines of the Spring Valley Water Company is a caution to engineers. Laminated wrought-iron pipes were torn apart like pasteboard and twisted about in a snake-like position and the Pilarcitos thirty-inch pipe line, lying directly along the line of the fault, is damaged beyond repair. The pipe lines across the bay were put out of commission as the farther end, the San Andreas line, across Baden marsh was badly broken at the Baden trestle with a number of very serious breaks in many parts of its length. Across San Bruno marsh 1200 feet of the Crystal Springs big forty-four-inch wrought iron main was torn away and as stated, the Pilarcitos main was entirely gone. The Lake Merced reservoir and Lake Merced line were broken, leaving the city with only 60,000,000 gallons in the reservoirs in two-and-a-half days' supply under normal conditions; but a great fire was raging and the city pipes were leaking in dozens of places.

"Don't swear at Lake Merced water," said Herman Schussler. "For it saved the entire Western Addition. Early on Wednesday morning I was informed that our entire pipe-line system from our sources of supply was gone. The entire flow of 35,000,000 gallons had stopped as quickly as though the pipes had been plugged. At that moment I knew there was only sixty hours' supply in the city, and that with a big fire and our city main broken. Maybe the Spring Valley boys did not work that day. A hurried view of the situation showed that the Lake Merced line might be more quickly repaired, and a force was concentrated there. We maintain our own repair shops, and by 9 o'clock on Wednesday night just sixteen hours after the break, Lake Merced was pouring 7,000,000 gallons into the city, and the Western Addition was safe. Within the next sixty hours we had repaired the break in the San Andreas line temporarily, and were sending in 5,000,000 gallons more by that line to the College Hill reservoir. Every engineer knows that when material has been strained beyond its tensile capacity it is unsafe to suddenly repeat the strain, except gradually. That was done in the case of the San Andreas line, increased at the rate of 500,000 gallons daily."

How the pipe lines were destroyed

## PERMISSION GRANTED OVERHEAD TROLLEY

THE UNITED RAILROADS WILL CHANGE ALL THEIR LINES INTO OVERHEAD TROLLEYS.

SAN FRANCISCO May 15—As quickly as it can get its men into the field the United Railroads will start the work of converting all of its cable roads, wherever practicable, into overhead electric roads. Millions of dollars are to be put into this and other improvements decided upon by the owners of the properties.

Permission to erect poles and wires on Market street, Butter street and on all other streets where the grades do not make the operation of electric cars impossible, was granted to the company in an ordinance adopted yesterday by the Board of Supervisors. The granting of this permission means the rehabilitation of the city's transportation system with the least possible delay. It means that cars will be running within thirty days over cable lines which could not be reconstructed and put into operation as cable lines within a year.

### THE CURTIS READY.

SAN FRANCISCO, May 10—The bark George Curtis has completed her repairs and is now in the stream ready to make another attempt to get to Honolulu. Her last attempt was a disastrous one, resulting in a collision which caused the death of the second mate and nearly that of the captain, besides crippling the vessel and compelling her to put back to this port in distress.

and repaired proved an interesting study. Where the San Andreas line crosses the Baden trestle a slip joint had been put in a number of years ago that permitted the expansion of the pipe, permitting it to crawl six inches under heat. This slip joint had been anchored to the pipe by four lugs, each having a tensile strength of about 500,000 pounds. These lugs, which had been tested to 2,500,000 pounds, were torn out like pasteboard. That pipe had to be repaired, and there were no iron works doing business in San Francisco then.

A sheet of boiler iron was cut out, a rubber gasket placed over the patches, the boiler iron bolted on and over the boiler iron were placed leaden patches. On either end of the broken pipe were bolted iron bands six inches across and an inch thick and under each band were iron lugs with a shoulder and a hook. From hook to hook was woven a net work of No. 10 galvanized iron wire, and this was woven also around the pipe across the patches. It required sixty hours' continuous work to do this.

The 1300-foot break across the San Bruno marsh was the hardest to repair. The forty-four-inch main had been on a pile trestle capped. It had required the top of a 10,000 pound hammer to send these pillings down half an inch, but they were smashed down by the shock and the pipe laid in snake-like formation forward and back, across the broken trestle. The San Bruno Marsh is mud for seventy or eighty feet down and the position of the pipe indicated that the shock had come from the beach and the mud did not move so quickly as the solid formation below. This is illustrated by placing a coin on a piece of stiff paper, placing the paper on the end of the finger and snapping it quickly with another finger. The paper will slip from under the coin, leaving it in its place.

This 1300 feet of trestle has been temporarily repaired, and water is now pouring through the main. The pipe had been pulled apart, and in many instances the 100 iron rivets three-eighths of an inch in diameter, had been cut in two as sheer as though done by a knife.

Fine Job Printing, Star Office.

## Major General H. C. Corbin



## Warm Weather

has no terrors for those who drink

## Primo Lager

It has all the wonderful refreshing properties of the finest hops and the strength of pure malt.

SOLD BY ALL DEALERS.



## Union Express Co.,

BRANCH HUSTACE PECK CO., LTD.

63 Queen Street

Having baggage contracts with the following Steamship Co.'s Lines:

Oceanic Steamship Co.  
Occidental & Oriental Steamship Co.  
Pacific Mail Steamship Co.  
Toyo Kisen Kaisha Steamship Co.

We check your outgoing baggage at your homes, saving you the trouble and annoyance of checking on the wharf. Incoming baggage checked on steamers of above companies and delivered with quickness and dispatch at your homes.

Telephone Main 86

## CHICAGO... IN LESS THAN 3 DAYS

and over The Only Double-Track Railway between the Missouri River and Chicago.

### Three Fast Trains Daily

VIA  
SOUTHERN PACIFIC, UNION PACIFIC AND  
CHICAGO & NORTHWESTERN RAILWAYS.  
OVERLAND LIMITED, VESTIBULED. Leaves San Francisco daily 11:00 a. m.

The most luxurious train in the world. New Pullman drawing room and stateroom cars built expressly for this famous train. Gentleman's buffet and Lady's parlor observation car. Book-lovers Library. Dining car—meals a la carte. Electric lighted throughout.

EASTERN EXPRESS, VESTIBULED. Leaves San Francisco at 6:30 p. m. Daily. Through Pullman Palace and Tourist Sleeping Cars to Chicago. Dining Cars. Free Reclining Chair Cars.

ATLANTIC EXPRESS, VESTIBULED. Leaves San Francisco at 6:00 p. m. Daily. Standard and Tourist Sleepers.  
PERSONALLY CONDUCTED EXCURSIONS  
Wednesday, Thursday and Friday. The best of everything.

Chicago & Northwestern Ry  
R. R. RITCHIE, G. A. P. C.,  
or S. P. Company's Agent. 617 Market St. (Palace Hotel) San Francisco.



Trade

**Santa Fe**

Mark

## California Limited

TO  
Chicago in 3 Days

Leaves Mondays and Thursdays  
At 9:30 a. m.  
With Dinners and Sleepers.

Passenger Agent, W. G. Irwin & Co., Office

## Union Pacific

Railroad

SUGGESTS

**Speed and Comfort**

Three trains daily through cars, first and second class to all points. Reduced rates take effect soon. Write now.

**S. F. Booth**

General Agent.

No. 1 Montgomery Street,  
San Francisco.

Nell—I just met Miss Nuritch and she said she was in a great hurry to get downtown and buy some gloves for your feet. What on earth was she driving at?  
Belle—My feet! Oh, I invited her to my lawn fete this afternoon.

## Travellers Agree

THAT  
**The Overland,**  
Limited

IS  
Quickest, Finest, Best

A Train that Supplies  
All Demands

To St. Louis or Chicago  
IN 3 DAYS

from San Francisco.  
ELECTRIC LIGHTS  
READING LAMPS,  
LULL CAR—  
ALL GOOD THINGS

## Southern Pacific

Information Bureau  
612 Market Street,  
San Francisco.

Fine Job Printing, Star Office.